MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

ALLEN-BRADLEY

1769-IF8

EIGHT-CHANNEL ANALOG INPUT MODULE

Used with the applicable Allen-Bradley CompactLogix configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

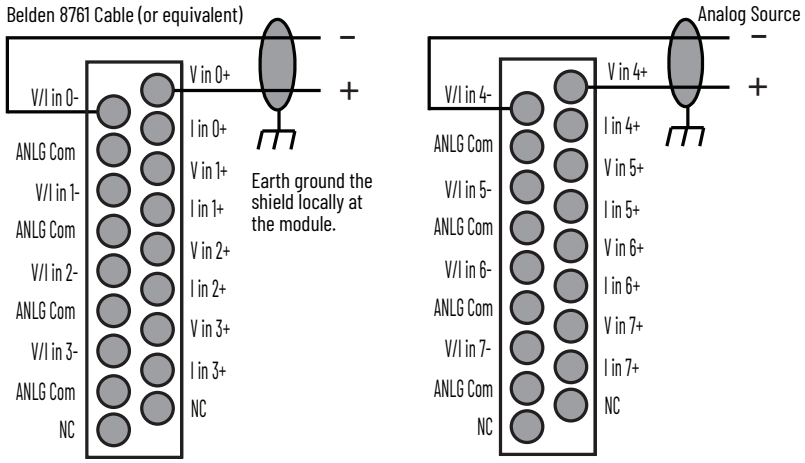
Selected official manufacturer pages follow this cover.

Source: Rockwell Automation 1769 Compact I/O Modules Specifications, 1769-TD006H-EN-P

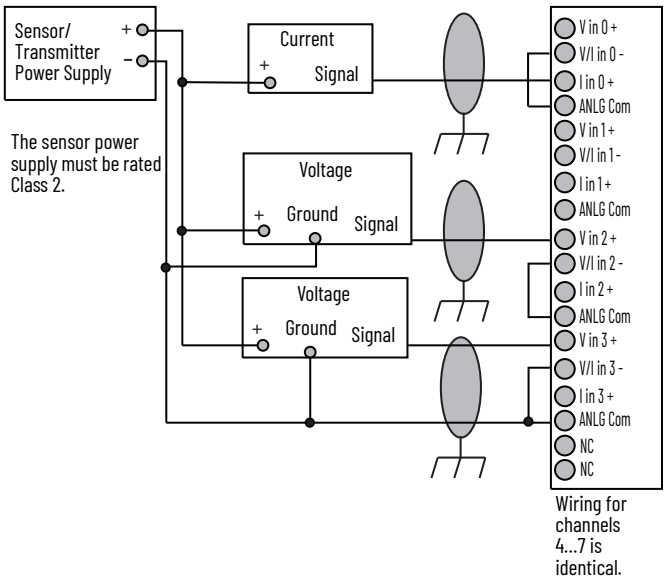
1769-IF8, 1769-IF8K

Compact voltage/current analog input module

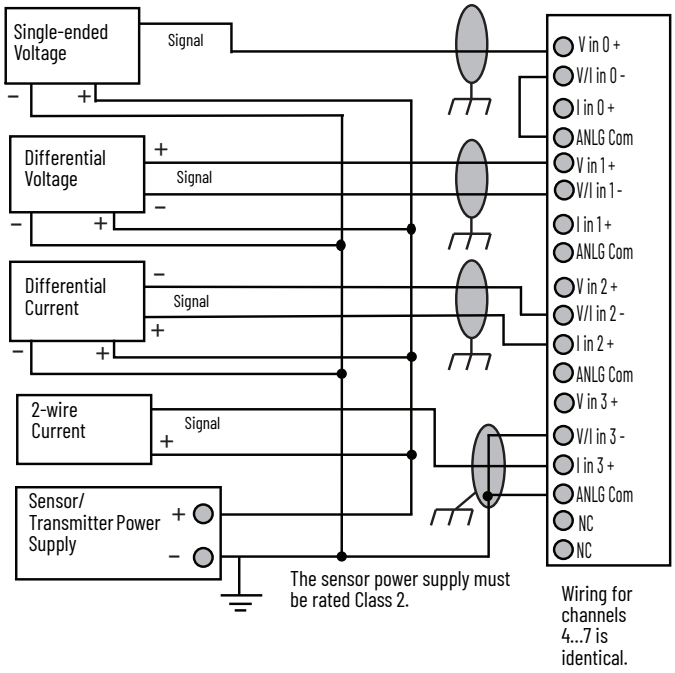
Differential Input Wiring



Single-ended Sensor/Transmitter Input Wiring



Mixed Transmitter Wiring



Technical Specifications - 1769-IF8, 1769-IF8K

Attribute	1769-IF8, 1769-IF8K
Inputs	8 differential or single-ended
Input range	±10V 0…10V 0…5V 1…5V 0…20 mA 4…20 mA
Full-scale range(1)	±10.5V -0.5…10.5V -0.5…5.25V 0.5…5.25V 0…21 mA 3.2…21 mA
Current draw @ 5.1V	120 mA
Current draw @ 24V	70 mA
Converter type	Delta Sigma
Heat dissipation, max	3.24 W
Resolution (2)	16 bits (unipolar), 15 bits plus sign (bipolar)
Rated working voltage(3)	30V AC/30V DC
Common mode voltage range(4)	±10V DC max per channel
Common mode rejection	> 60 dB @ 50 Hz and 60 Hz with the 10 Hz filter selected
Normal mode rejection ratio	-50 dB @ 50 Hz and 60 Hz with the 10 Hz filter selected
Input impedance	Voltage: 220 kΩ, Current: 250 Ω
Accuracy(5)	Voltage: ±0.2% full-scale @ 25 °C (77 °F) Current: ±0.35% full-scale @ 25 °C (77 °F)
Accuracy drift with temperature	Voltage: ±0.003% per °C Current: ±0.0045% per °C
Nonlinearity	±0.03%
Repeatability(6)	±0.03%
Module error	Voltage: ±0.3% Current: ±0.5%
Overload at input terminals, max(7)	Voltage: ±30V DC continuous, 0.1 mA Current: ±32 mA continuous, ±7.6V DC
Isolation voltage	500V AC or 710V DC for 1 minute (qualification test), group to bus 30V AC/30V DC working voltage (IEC Class II reinforced insulation)
Weight, approx	450 g (0.99 lb)
Dimensions (HxWxD), Approx	118 x 52.5 x 87 mm (4.65 x 2.07 x 3.43 in.) Height with mounting tabs 138 mm (5.43 in.)
Slot width	1.5
Module location	DIN rail or panel mount
Power supply	1769-PA2, 1769-PB2, 1769-PA4, 1769-PB4
Power supply distance rating	8 modules

Technical Specifications - 1769-IF8, 1769-IF8K

Attribute	1769-IF8, 1769-IF8K
Terminal screw torque	0.68 N•m (6 lb•in)
Retaining screw torque	0.46 N•m (4.1 lb•in)
Wire size	(22…14 AWG) solid (22…16 AWG) stranded
Wire type	Cu-90 °C (194 °F)
Replacement terminal block	1769-RTBN18 (1 per kit)
Replacement door	Not available
Vendor ID code	1
Product type code	10
Product code	38
Enclosure type rating	None (open-style)

(1) The over- or underrange flag turns on when the normal operating range (over/under) is exceeded. The module continues to convert the analog input up to the maximum full-scale range. The flag automatically resets when within the normal operating range.
(2) Resolution is dependent upon your filter selection. The maximum resolution is achieved with either the 50 Hz or 60 Hz filter selected.
(3) Rated working voltage is the maximum continuous voltage that can be applied at the input terminal, including the input signal and the value that floats above ground potential. For example, a 10V DC input signal and 20V DC potential above ground at the input terminal.
(4) For proper operation, both the plus and minus input terminals must be within ±10V DC of analog common.
(5) Includes offset, gain, nonlinearity, and repeatability error terms.
(6) Repeatability is the ability of the input module to register the same reading in successive measurements for the same input signal.
(7) Damage can occur to the input circuit if this value is exceeded.

Response Speed - 1769-IF8, 1769-IF8K

Filter Frequency	Update Time Per Channel	Update Time Per Module
10 Hz	100 ms	400 ms
50 Hz	30 ms	120 ms
60 Hz	30 ms	120 ms
250 Hz	9 ms	36 ms
500 Hz	6 ms	24 ms

For **Environmental Specifications**, see page 2.

For **Certifications**, see page 3.